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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,282

03/23/2004

Hisanori Yokura

03-042

1853

23400

7590

03/22/2005

POSZ LAW GROUP, PLC  
11250 ROGER BACON DRIVE  
SUITE 10  
RESTON, VA 20190

EXAMINER

TANINGCO, MARCUS H

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/806,282

Applicant(s)

YOKURA ET AL.

Examiner

Marcus H. Taningco

Art Unit

2878

✓

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshiyuki (JP 9184803) in view of Turcott (US 6,491,639).

Re claim 1, Toshiyuki discloses a gas detection device comprising: a light source 4; a photodetector 5; a package for housing the light source 4 and photodetector 5 (Fig. 1); a reflector mirror 2 wherein the package houses all of the light source 4 and photodetector 5, and the photodetector 5 detects light absorption by gas provided in a space between the reflector mirror 2, the light source 4 and the photodetector 5 (Abs.). Toshiyuki fails, however, to specify a shield. Turcott discloses an infrared detector (Fig. 4b) comprising a shield 13 used to reduce

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light beams that directly reach the light sensor element. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Toshiyuki with a shield in order to prevent the direct transmission of light from source 4 and detector 5 as taught by Turcott (Col 12, 32-41).

Re claim 2, Toshiyuki discloses a light source 4 emitting infrared rays and a photodetector 5 to detect said infrared rays (Abs.).

Re claim 3, Toshiyuki teaches a window 17 for passing light emitted from the light source 4 and a window 18 for passing light reflected off the reflector mirror 2 to the photodetector 5 (Fig. 1).

Claims 4-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Toshiyuki and Turcott as applied to claim 3 above, and further in view of Weckstrom et al. (US 2003/0177814).

Re claim 4, Toshiyuki and Turcott disclose the claimed invention according to claim 3 except for a band-pass filter. Weckstrom et al. discloses a gas analyzer (Fig. 1) comprising a band pass-filter 10. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the combination taught by Toshiyuki and Turcott with a band-pass filter in order to prevent substantially all radiation from reaching the detector and passing only desired wavelengths.

Re claim 5, Toshiyuki discloses the claimed invention wherein the light source 4 and the photodetector 5 are mounted on a single circuit chip 13.

Re claim 6, Tohiyuiki discloses the claimed invention except for mounting the light source 4 and the photodetector 5 on separate circuit chips. It would have been an obvious matter

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of design choice to mount the source 4 and detector 5 on separate chips, since applicant has not disclosed that separate chips solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a single circuit chip.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mordechai et al (US 6,430,941) discloses an infrared detector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus H. Taningco whose telephone number is (571) 272-1848. The examiner can normally be reached on M - F 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MT

  
**DAVID PORTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**